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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,654	01/13/2006	Zhong Zhun	PHUS030235	1567

24737 7590 07/13/2010
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

ZEWDU, MELESS NMN

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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07/13/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,654	Applicant(s) ZHUN, ZHONG	
	Examiner Meless N. Zewdu	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-13,15-17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3, 9-11,13,15-17,19,23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 4-8 and 20-22 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Appeal Brief

1. This action is in response to the communication filed on 5/11/10.
2. Claims 2, 14 and 18 were previously cancelled.
3. Claims 1, 3-13, 15-17 and 19-24 are pending in this action.
4. An Appeal Brief Conference was held on 6/10/10. The conference made a decision to withdraw finality and reopen prosecution. A new action follows.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 9-11, 15-17, 19, 23 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Jeong et al. (Jeong) (US 2006/0111103 A1). **Note: the provisional application of Jeong et al., filed on 5/13/2003 has same disclosure as the Patent Application Publication (US 2006/0111103 A1).**

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As per claim 15: Jeong discloses about an access Point in a wireless local network (WLAN) that provides priority to facilitate a handoff of a station (STA) between one or more Access Points (AP) (see figs. 1, paragraphs 0004, A, 2 and 4; abstract), (wherein the feature --- that provides priority to facilitates a handoff ---- is considered as an intended use for it does not enhance the body of the claim), comprising:

a probe request sensing unit for sensing when a probe request message has been sent on a particular communication channel (see abstract; paragraph 0079).

wherein the channel in which the probe is sent is interpreted as a particular channel or PCF channel, since it (the probe is sent to a specific AP. And wherein a probe request sensing/receiving is inherent to the specific AP.

an inter-frame communication sensing/detecting unit for sensing a point coordination inter-frame coordination (PIFS) on the particular communication channel (see paragraph 0012, 0120, 0126), wherein the “an inter-frame communication sensing unit” is inherent within the embodiment of the prior art.

probe response sending means for sending the probe response message after the PIFS sensed by the inter-frame communication sensing unit (see abstract; paragraphs 0130-0131). Furthermore, Jeong states that --- A PIFS is only used by transmitting device operating under a Point Coordination Function (PCF) to gain priority access to a channel on the wireless medium at the start of a contended free period (see paragraph 0012), So, PIFS is only used for gaining a priority access, a consequent priority assignment will eliminate contentions and consequently back-off

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interval of time. Therefore, the claimed feature --- without performing back-interval must be an inherent feature within the embodiment of the prior art.

As per claim 16: Jeong discloses about an access Point according, wherein the inter-frame communication sensing unit and the probe response means sense a distributed coordination function (DCF) inter-frame space period (DIFS) of a particular channel and respond to probe requests with non-unicast destination addresses after the (DIFS) and back-off interval (see paragraphs 0013, 0105)> For non-unicast (see paragraph 0034).

As per claim 1: while the feature “a method for fast active scanning on a wireless local area network (WLAN) between a mobile station (STA) and at least one access point (AP)” is considered as an intended use (for it does not enhance the body of the claim), the features of claim 1 are similar to the features of claim 15, except claim 1 is directed to a method comprising steps intended/required to be performed by the apparatus of claim 15. Hence, since, the apparatus of claim is closed and the method is required by the apparatus, claim 1 is rejected on the same ground and motivation as claim 15.

As per claim 3: Jeong teaches about a method, wherein the probe request message is a uni-cast message (probe message) to the particular (AP) (see paragraphs 0028, 0103).

As per claim 9: Jeong teaches a method, wherein only the particular (AP) transmits after the (PIFS) inter-frame in response to receiving the uni-cast probe request message, from an STA (see paragraphs 0012, 0103, 0105; see also abstract and paragraphs 0010-0026, 0133-0134).

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As per claim 10: Jeong discloses a method, further comprising:

acknowledging receipt of a probe response message by the station in response to the probe request message (see paragraphs 0054, 0105, 0121);

continuing a handoff function by the station with the particular access point (see paragraphs 0005, 0084, 0086).

As per claim 11: while the feature “a method for fast active scanning” in the preamble is considered as an intended use (for it does not enhance the body of the claim, the features of claim 11 are similar to the features of claim 15, except preparing a probe response message by the one particular (AP) , which examiner considers as obvious from the reception of the probe response message shown in the prior art point coordinate function system. Therefore, claim 11 is rejected on the same ground and motivation as claim 15.

As per claim 17: while “a fast active scanning system” in the preamble is considered as an intended use (for it does not enhance the body of the claim), the features of claim 17 are similar to the features of claim 15, wherein examiner interprets the feature --- a particular second station --- as being one of the stations (STA 55 or 40) in fig. 2 of the prior art. Hence, claim 17 is rejected on the same ground as claim 15.

As per claim 19: Jeong teaches a system, wherein the probe request message sent by the first station comprises a unicast message to the particular second station (see paragraphs 0028, 0103).

As per claim 23: while the feature “a first station in a wireless local area network that provides priority to facilitate a handoff between one or more second stations” in the

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preamble is considered as an intended use (for it does not enhance the body of the claim), the features of claim 23 are similar to the features of claim 15. Therefore, claim 23 is rejected on the same ground and motivation as claim 15.

As per claim 24: the feature of claim 24 is similar to the feature of claim 16. Hence, claim 24 is rejected on the same ground and motivation as claim 16.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeong et al. (Jeong) (US 2006/0111103 A1) in view of Vanderveen (US 2002/0197979 A1)

As per claim 13: some of the features of claim 13 are similar to the features of claim 15, except the following differences, which are treated as shown below.

. sensing, by the mobile station, for a distributed coordination function inter-frame space period (DIFS) of a particular channel reads on Jeong ('103) (see paragraphs 0013, 0105);

receiving by said at least one new Access Point the probe request message sent by the mobile station, reads on Jeong ('103) (see paragraphs 0079, 0130-0131). Note: The CAP (candidate access point) includes or can be the new access point.

preparing a probe response message by the new Access Point, reads on Jeong (see paragraphs 0128-0131);

sensing by the new Access Point a point coordination function inter-frame space (PIFS) of the particular channel (see paragraphs 0134, 0012, 0120, 0130-0131). Since PIFS is implemented by a transmitter, it would be sensed by an access point when it is transmitted by a mobile station.

sending by said new Access Point a probe response message to the mobile station in response to the probe request message without performing a back-off interval (see abstract; paragraphs 0010, 0012, 0036-0038, 0106-0107, 0122). But, Jeong does not explicitly teach about --- the mobile station authenticating and re-associating with said new Access Point, followed by the mobile station being handed-off to said new Access Point. However, in the same field of endeavor, Vanderveen teaches about Authentication System about Mobile Entities, wherein --- after handoff the mobile node and new base station perform a unilateral authentication operation (see abstract; paragraphs 0030, 0050, 0068 and 0079). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Jeong with that of Vanderveen for the advantage of allowing a mobile node/station to have some degree of confidence in the authenticity and legitimacy of a new base station (see paragraph 0006, second column pages 1-10).

Allowable Subject Matter

The indicated allowability of claim 13 is withdrawn in view of the newly discovered reference(s) to Vanderveen (see the rejection above). Rejections based on the newly cited reference(s) follow. Furthermore, the indicated allowability of claim 10 is withdrawn for the following reason. Based on careful and broad interpretation of the claim, it was found that claim 10 reads on Jeong as shown the body of the rejection of the same.

Claims 4-8, 12 and 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Note: the objection of claim 8 is based on its dependence on claim 4.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments with respect to claims 1, 3, 9-11, 13, 15-17, 19, 23 and 24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bost Dwayne D can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

/Meless N Zewdu/

Primary Examiner, Art Unit 2617 (6/11/10)